



THOMAS G. NEWMAN,
EDITOR.

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EDITORIAL BUZZINGS.

Keep a watch on your words, my brother,
For words are wonderful things;
They are sweet, like the bee's sweet honey—
Like the bees, they have terrible stings.

Our New Location, in the heart of the business district of the city, at No. 246 East Madison Street, brings us in direct communication with the several express companies, and we are conveniently near all the freight depots.

This location has made it possible for us to be more prompt than ever in filling orders, saving the long distance for hauling—which time can now be used for filling orders. Our friends will find it very convenient to call on us when in the city.

Mr. Christian Weckesser, of Marshallville, O., was married to Miss Ella E. Long, at Williamsville, N. Y., on Feb. 16, 1890, the Rev. Eli Herr officiating. After the services a number of friends of Mr. and Mrs. Long, the parents of the bride, assembled at their home and partook of an excellent dinner. The happy couple will make their future home at Marshallville, O. The BEE JOURNAL extends congratulations to them, and hopes for a long *honey-moon*, extending all through life. Mr. Weckesser is one of our valued correspondents.

Not Sold Out.—The notice in last week's BEE JOURNAL that John Andrews had sold out his "Queen Business" is a mistake. He had only sold out all the stock of queens that he had wintered. His advertisement in this issue shows that he is still in the queen-rearing business at Patten's Mills, N. Y.

The Ohio State Convention, held at Cleveland, was a "right-royal meeting." Dr. C. C. Miller called on us on his return from attending it, and so reported it. Then Dr. A. B. Mason wrote us very nearly the same thing. He adds:

President Boardman not being present at the time for calling the convention to order, the Secretary, Miss Dema Bennett, called it to order, and Dr. C. C. Miller was chosen as temporary chairman.

There were 71 members present [and a goodly number not members], and several times I saw four, and occasionally five, rise at once to speak, and it took both Dr. Miller and Mr. Boardman to keep us straight. The next meeting is to be held at Toledo, and of course you will be on hand. We affiliated with the International. A. B. MASON.

We are glad to learn that there was such an excellent meeting, and that the Ohio State Society has affiliated with the "International American Bee-Association." That is the only way to make the International "representative" in fact as well as in name. Let all bee-societies affiliate at their next meetings.

The Lady bee-keepers are always welcomed both at bee-conventions and as writers in the bee-periodicals. Their presence is cheering and elevating at the former, and their articles in the latter are interesting and enlivening. Mr. J. W. Tefft writes thus concerning one who wrote four articles for the AMERICAN BEE JOURNAL last year—Miss Ida House—and we cordially invite her to write again, as she may have opportunity. Mr. Tefft says:

I am delighted with the articles of Miss Ida House. They are so interesting that I read them over several times before I have, like the bee, extracted all the sweetness. If she knew how refreshing it was to get such articles, after poring over the heavy articles from the professional writers, she would write oftener. I should like to see something from her pen at least once a month.

Miss Ida House will be welcome to our columns as often as she chooses to write. She is the sister-in-law of Mr. William Lossing, a progressive bee-keeper of Minnesota, and has helped him in the care of his bees, for the past seven years.

The World's Fair, in commemoration of the discovery of America by Columbus, 400 years ago, is to be held in Chicago. The location is selected, but the time, and many other matters, are not yet decided upon by Congress. In our next issue we hope to be able to give full particulars, and invite the World to come and see the Great City of the West—and the greatest Fair the World ever saw.

Handling Bees.—This is the title of a nice pamphlet containing 14 pages and a cover, just issued by Chas. Dadant & Son. It is a chapter from their book, *Langstroth Revised*, and is an excellent thing for beginners. Price, 8 cents. For sale at this office.

From W. C. Lyman, of Downer's Grove, Ill., comes a new reversible frame similar to the Heddon reversible-frame, but the extra top-bar which holds the reversing frame, extends a bee-space above it, and is in two strips with a piece of queen-excluding zinc put into slots between them—the whole top-bar being wide enough to touch the next top-bar and make them close-fitting, when the hive is filled with such frames—thus preventing the queen from going into the surplus arrangement. If a reversible frame is not desired, this top-bar arrangement can be used on any frame. Mr. Lyman will test the matter during the coming season, and report the result.

Mr. C. H. Dibbern, whose perfected bee-escape was mentioned in his letter published on page 148 of our last issue, has sent us one inserted in a small piece of board, to show how to place it in larger boards. The bee-escape is not only perfected, but we might say it is "Perfection" itself! It is made of tinned wire-cloth, soldered on tin, and is made so that they can be readily taken out of the escape-board from the top.

Texas Spring Palace.—The grandest and most unique Exposition ever held in the United States, will exhibit to the world the wonderful and varied products of Texas, woven and arranged into most beautiful pictures, descriptive of landscapes and scenes in the State, at Fort Worth. The season will commence May 10, and close May 31, 1890.

The farmers and bee-keepers of Newaygo county, Mich., held their fourth annual institute at Hesperia, Mich., last Wednesday and Thursday. Our friend, Geo. E. Hilton, is Secretary and Treasurer, and takes a prominent part in the discussions. A nice programme is on our desk.

New Catalogues and Price-Lists for 1890 are received from—

J. D. Goodrich, East Hardwick, Vt.—8 pages—Bee-Keepers' Supplies.

J. W. Rouse, Santa Fe, Mo.—4 pages—Bees, Hives and Poultry.

Christian Weckesser, Marshallville, O.—20 pages—Seeds, Plants, Bees, Queens, etc.

H. G. Frame, North Manchester, Ind.—4 pages—Bees and Queens.

John Gardiner & Co., Philadelphia, Pa.—100 pages—Seed Annual.

Z. De Forest Ely & Co., Philadelphia, Pa.—100 pages—Garden Manual.

J. W. K. Shaw & Co., Loreauville, La.—4 pages—Queens.

Joseph E. Shaver, Friedens, Va.—32 pages—Bee-Keepers' Supplies.

J. M. Shuck, Des Moines, Iowa—32 pages—Specialties in Apiculture.

F. A. Snell, Milledgeville, Ill.—18 pages—Apiarian Supplies.

J. T. Wilson, Little Hickman, Ky.—1 page—Italian bees.

GLEAMS OF NEWS.

The California Crop of honey and beeswax, for the past year, is set forth as follows in a circular just issued by Schacht, Lemcke & Steiner, of San Francisco, Calif.:

The crop of honey in 1889 was not as large as in the previous year, but nevertheless, sufficient quantities have been produced so that no scarcity has been felt during the season, and, even now, we have sufficient honey on hand for our demand; as the same has not been a very active one for the export trade that generally has absorbed large quantities in previous years.

We estimate the crop in California for the year 1889, at 2,000,000 pounds of extracted honey, and 200,000 pounds of comb honey, or a total of 2,200,000 pounds for the year 1889. Comparing this year's production with former seasons, the result is not a very favorable one, as California produced in 1888, 3,500,000 pounds; in 1887, 1,200,000 pounds; in 1886, 5,000,000 pounds; in 1885, 1,250,000 pounds; and in 1884, 9,000,000 pounds, or an average of nearly 4,000,000 pounds. It is difficult to approach again the amount produced in 1884, for the reason that a great deal of land is now cultivated, so that the bees had to be removed further and further back into the mountains.

The prospect for the coming season is so far a very good one. We have had an abundance of rain, and if we should get some rains again in March or April, to keep the different kinds of trees and flowers in blossoms, we will probably have a larger yield of honey than we have had since 1884. However, nothing certain can be said now, as a great deal depends upon the weather we will have during the honey-producing months, which are in particular May, June and July.

Statistics show that in Europe the supplies are very short, and that also very little honey is on the way from here to Europe. In the East, the stocks of honey are also limited, and in California, we have no more honey on hand than will be needed for the local consumption during the remaining season, as we will have no new honey before June or July, with February, March and April before us, in which months generally a great deal is consumed.

The quality of the honey has been choice, but only little white honey has been produced, and in consequence, a good many orders for white honey could not be filled.

For comb honey the demand has not been a very active one, but comb honey in one-pound sections sells much better than honey in two-pound sections, and very little comb honey in two-pound sections should be produced in the future. Eastern buyers do not wish to buy it at all, and also the local demand calls now particularly for honey in one-pound sections.

The average price for extracted honey during the last year has been 6 cents, and for comb honey 12 cents in one-pound sections, which prices we leave unchanged at the present time. Although some extracted honey has been sold as low as 5½ to 5¢ cents, these prices are too high for export, and apiarists must be prepared to see lower prices in the coming season, particularly if we have a good crop. If prices rule higher than 4 to 5 cents, business of importance cannot be done with Europe, for the reason that other kinds of honey will be taken if prices for California are higher.

The production of beeswax has been small in the past year, we estimate it at 30,000 pounds against 40,000 pounds in the former year.

Marion Harland, the friend and helper of women everywhere, has taken up the work of restoring the ruined monument marking the burial-place of Mary, the Mother of Washington.

One hundred years ago this venerable woman was interred in private grounds near Fredericksburg, Va. In 1883, the corner-stone of an imposing memorial was laid by President Andrew Jackson. A patriotic citizen of New York assumed the pious task single-handed, but meeting with financial disaster, was compelled to abandon it.

Marion Harland says truly—in her appeal to the mothers and daughters of America, to erect a fitting monument to her who gave Our Country a Father—that “the sun shines upon no sadder ruin in the length and breadth of our land, than this unfinished structure.” See page 67.

The publishers of “The Home-Maker,” issued at 19 West 22d St., New York, of which Marion Harland is the editor, offer, as their contribution to the good cause, seventy-five cents out of every annual subscription of two dollars to the Magazine sent in during the next six months. Every such subscription must be accompanied by the words, “For Mary Washington Monument.”

The offer is generous, and should meet with an enthusiastic response.

Yellow Jessamine.—Mr. W. M. Crutcher, of Zellwood, Fla., asks the following question:

DEAR EDITOR:—Will you kindly inform me whether honey gathered by bees from blossoms of the yellow jessamine vines is poisonous, or in any way injurious for eating? I am a beginner in bee-keeping, and a large jessamine bush, in close proximity to my hives, is now in full bloom, and the bees are gathering honey and pollen from it.

This bush is found on sandy soil at the South (*Gelsemium sempervirens*); its common name being “yellow jessamine;” it is not very desirable to have within range of the bees, especially if they are Italians; while the native bees very seldom are seen on it, Italians get both honey and pollen from it, but mostly the latter. The young bees, after taking their first meal on these flowers, will have distended abdomens, and will act as though they were intoxicated. They usually crawl out of the hives, and very soon expire, unless prevented from going out by being overcome by the strength of the poison. Many of our Southern bee-keepers have had sad experience on account of their proximity to this plant. While the honey is not very detrimental to the human stomach, it is not very agreeable to the palate.

A Smart Little Boy in Georgia, who was kicked by a mule, instead of saying naughty words, or going home crying to his mother, tied the mule within five feet of a bee-hive, backed him round to it and let him kick.

A correspondent in the *National Stockman* lately wrote a very foolish article on queen-bees, showing that he knew nothing of the subject on which he wrote. Dr. C. C. Miller gave a criticism of that article in last week's *Stockman*. Among other things he says:

The idea that “the old queens die off in May or June.....and as soon as the queen dies, the workers commence rearing queens; that when they come forth, swarms begin to come off,” is certainly not borne out by the facts. On the other hand, queen-cells are started in the majority of cases while the queen is present and laying in the hive, and the queen which has done so much laying instead of dying in May or June, leaves the hive with the swarm, perhaps to repeat the same thing the following year.

The silly nonsense which obtains a place in some agricultural papers, is astonishing. We are glad that Dr. Miller has paid his respects to at least one of that class of writers.

Remedy for Coughs, Colds, etc.

—Among the many recipes in which honey is used for curing diseases of the throat, lungs, etc., is the following, which is recommended as an excellent remedy for coughs, colds, sore throats and hoarseness:

Boil two ounces of flax-seed in a quart of water; strain this, and add to it one-half pint of honey, two ounces of rock-candy, or lump-sugar, and the juice of two or three lemons. Boil all well together, and bottle or can it. The dose is one little tea-cupful, hot, before going to bed; and a wine-glassful before meals. Drink it as hot as you can.

Every Person who has a life-insurance policy, or who expects to take one, will be profoundly interested in a series of articles now being printed over the signature of “The Hermit,” in “Frank Leslie's Illustrated Newspaper.” The pictures in Leslie's last week are all excellent. They include pictures of wonderful ruins of Prehistoric Colorado, and several illustrations of important foreign events.

Trifet's Monthly Galaxy of Music, published at 408 Washington Street, Boston, Mass., presents an excellent monthly installment of songs and instrumental music. The February number contains the piece “Winsome Grace,” a most beautiful schottische by Boston's best known teacher, Prof. T. H. Howe. We will club it with this JOURNAL, and send both for \$1.75.

The Figure 9 has been in our dates for over a year, and will stay with us for over a century, replacing the 8. No one now living will ever date a document without using the figure 9. Last year it stood on the extreme right—1889. This year it is in the third place, where it will remain ten years. It will then move up to the second place—1900—and there it will rest for one hundred years.

A Lecture on Fraud.—On page 115 we noted the fact that the *Prairie Farmer* had published Lizzie Cotton's advertisement, and remarked that Mrs. Harrison, who conducts the Apian Department in that paper, should give a lecture on fraud. Well, she did, and here it is, copied from last week's *Prairie Farmer*:

Why, Lizzie, you are wonderfully toned down in your advertisement. Honey is so cheap you don't make fifty dollars per hive for every colony in your yard, as you used to do yearly (on paper). It is too bad, isn't it? If I had such valuable stock as you have, I would not sell nary bee; no, not one. But then, twenty dollars for a few bees in a box, minus a queen, is not to be sneezed at, any day. Your "New System of Bee-Keeping" is not to open a colony purchased of you for two weeks, for in that time the bees will have reared a queen.

"Money can be made keeping bees. In nearly every family there is some one who could keep bees on my plan, and secure a handsome yearly income." How is your plan different from all the bee-keepers of the world, who tell all they know—and more too—without money and without price? How about that wonderful bee-food, the recipe for which you charged so much, the slippery elm one? You remember it, do you not? Do you have it incorporated in your "Illustrated Book of Information, Free?" You never sent me your book, as many other authors have done; O, no; you are not green enough for that, but Prof. J. B. Turner, of Jacksonville, Ills., did with his compliments; here it is verbatim:

Can you not, through the *Prairie Farmer*, help to expose this transparent fraud? I am tired of receiving her circulars. I learn of many cases in which money sent to her has been cabbaged without any return whatever. If she wishes to do any honest business, why not send her things C. O. D.?
Jacksonville, Ills. J. B. TURNER.

Mrs. Lizzie E. Cotton, of West Gorham, Maine, has received more attention from the editors of bee-periodicals, than any bee-keeping woman in our land; and she is many times the sole occupant of a column devoted to exposing humbugs and swindlers. Mrs. Lizzie does not wear a bustle or bangs; O, no! but coat, pants and vest, and is known as Mr. Cotton, away down in Maine.

When I was attending the Exposition in New Orleans, and examining the inventions of women, my eye caught a pine box with a huge placard tacked to one side with the inscription, "The Controllable Bee-Hive and New System of Bee-Management." It was no hive at all; there was not a frame in it; without cover or surplus arrangement. There was a bright bee-keeper there who had charge of an exhibit from one of the parishes of Louisiana, and she went to the manager of that department and had the box removed, for there was nothing in it to be called an invention.

The cheek! to get her advertisement inserted in the *Prairie Farmer* after she had been exposed in its columns as a swindler years ago. Many persons who could ill afford the expense, have been sent useless lumber by express, costing large sums. All who send her money may expect to be treated as the spider did the fly.

The Report of the proceedings of the 20th annual session of the International American Bee-Association contains, besides the interesting report, the new songs and music then used, and engravings of the present officers as well as the retiring ones. In all, it contains 36 pages. It is for sale at this office. The price is 25 cts., postpaid.

QUERIES REPLIES.

Ripening and Re-Liquefying Extracted Honey.

Written for the American Bee Journal

Query 691.—1. In placing extracted honey in open vessels to ripen, does it impair to any material extent, the essential oils that give to comb honey that exquisite aroma and sparkling flavor so delightful to the taste? 2. Does heating granulated honey in order to re-liquify the same, destroy any material element of its natural flavor?—Ohio.

1 and 2. Not to any appreciable extent.—J. P. H. BROWN.

1. I think not. 2. Not unless it is overheated.—EUGENE SECOR.

1. In open vessels, yes. 2. No, not if properly done.—MRS. L. HARRISON.

1. I believe it does, to some extent. 2. Not unless it is heated more than is necessary to liquify it.—A. B. MASON.

1. I do not know. I doubt if it does. 2. Generally it does, because heated too rapidly and too much.—C. C. MILLER.

1. I hardly think so. 2. Not if the vessel containing the honey is placed in water, and brought to a gradual heat.—J. M. HAMBAUGH.

1. Prof. Cook says "No." 2. If you heat it too hot, it will destroy the fine flavor.—H. D. CUTTING.

1. We think not. 2. Not if done carefully, *au bain-marie*, on a very slow fire; but it is very easy to damage it with too much heat.—DADANT & SON.

1. No—unless the honey was too thin when extracted. 2. Not if done in a water-bath, at as slow a heat as possible.—P. L. VIALLO.

1. I think that it does. Extracted honey, no matter from what source, in time tastes simply sweet, and that is about all. 2. No, if it is not heated too highly.—C. H. DIBERN.

1. Indeed it does not—at least here in Michigan. 2. Not if gently heated. Care should be exercised not to over-heat it.—A. J. COOK.

1. It is not easy to determine the force of the words "to any material extent." Extracted honey loses flavor by exposure to the air. 2. The flavor is still more impaired by heating.—M. MAHIN.

1. It loses none of the flavor which it has when extracted. The flavor of thin honey is not as good as that left in the hive for a month or two. 2. Not unless heated too hot.—G. M. DOOLITTLE.

1. I think that it does. If there is any advantage to be gained from extracting unripe honey, I have yet to learn it. 2. Put the vessel containing the honey, in water, and then heat. No injury results from liquifying honey in a water-bath.—G. L. TINKER.

1. Not if placed in a clean room, and properly cared for. 2. Not unless heated to too high a degree of temperature; all that is required, being to simply liquify the honey.—J. E. POND.

1. Yes. 2. No. Uncap comb honey and expose it to the air, and it soon loses, in a large degree, that quality which makes it desirable as honey. While extracted honey of good quality is superior to all the syrups, it will always be considered as belonging to them, and classed with them.—J. M. SHUCK.

In the first place, my honey never needs "ripening." What a word to apply to a fluid! But the querist is not responsible for introducing it into our current bee-literature. I do not remove the honey from

the hives until it is thoroughly evaporated by the bees. By a proper application of the "tiering-up system," I gain both in quantity and quality of honey. 1. Certainly, it does. All the samples of artificially-evaporated honey that I have kept in my collection of samples, have proven to be poor stuff. 2. Granulated honey can be reduced to the liquid state without perceptible loss of flavor, if properly done.—G. W. DEMAREE.

1. No. 2. Yes, if heated too much. Place a vessel of water on the stove, and put the vessel containing the honey in the water, keeping it from touching the bottom of the first vessel by putting sticks between, and heat the water to a temperature not to exceed 150 degrees, when the honey will be slowly liquified without injury.—R. L. TAYLOR.

1. No, it does not impair the essential oils, and the essential oils do not get away. Let me tell you what takes place: You would not put the honey in an open vessel to ripen, if it was not too thin. It contained water which you wanted to get rid of. This water will not evaporate unless the temperature is well up. With this temperature up, and with this surplus water which you wish to get rid of, bacteria are produced; in other words, fermentation takes place just a little. Had you added plenty of water before you began the open-air ripening process, vinegar would have been the result before the ripening took place. As it was, your honey went towards the vinegar state just a little, and took on the sharp twang which cuts in the throat, and gives you the impression that the essential oil is gone. Do not think you can keep up a demand for your extracted honey and ripen it on the open-air plan. Let it be well ripened by the bees before you extract it, then screw it up air-tight, and keep it in a cool place. The cool places are damp, because they are cool, but that will not hurt the honey if the can is screwed up air-tight. 2. If it granulates, heat it slowly back to liquid, and you will not injure it. No one will ever be able to tell that it was granulated and then re-liquified.—JAMES HEDDON.

1. The air will ripen honey when it is too thin, without injuring it in the least. 2. Heating granulated honey, to liquify it, does no injury, if it is slowly done in an outer kettle of water, and not burned.—THE EDITOR.

Doolittle on Queen-Rearing.

Queens can be reared in the upper stories of hives used for extracted honey, where a queen-excluding honey-board is used, which are as good, if not superior, to Queens reared by any other process; and that, too, while the old Queen is doing duty below, just the same as though Queens were not being reared above. This is a fact, though it is not generally known.

If you desire to know how this can be done—how to have Queens fertilized in upper stories, while the old Queen is laying below—how you may safely introduce any Queen, at any time of the year when bees may fly—all about the different races of bees—all about shipping Queens, queen-cages, candy for queen-cages, etc.—all about forming nuclei, multiplying or uniting bees, or weak colonies, etc.; or, in fact everything about the queen-business which you may want to know, send for "Doolittle's Scientific Queen-Rearing," a book of 170 pages, which is nicely bound in cloth, and as interesting as a story. Price, \$1.00.

CORRESPONDENCE.

PRIZE ESSAY.

Extracted Honey—Its Production and General Use.

Written for the American Bee Journal
BY J. F. LATHAM.

With the steadily increasing utilization of honey in the many useful branches of the arts to which it is applicable, and for which no other product of human industry is so well adapted, it is becoming more apparent every year that, to meet the public demand, it must be supplied to the trade freed from the comb—extracted. In no other condition can honey be made to fill the numerous places, in response to the present rapidly-developing uses as an aliment; or the many ways by which its virtues prove to be serviceable, medicinally, for which it is needed.

In order to bring extracted honey to the notice of the general public, many obstacles that now retard its introduction, require attention from the producer. Although it is an established fact, that honey extracted from the comb can be obtained by the bee-keeper at less expense than honey in the comb, the fact is no less prominent that the present trade excess of the latter over the former, is detrimental to the sale of extracted honey, as it leads the uninformed consumer to conclude that honey out of the comb is intrinsically less valuable than honey in the comb; and that, too, in the face of the fact that the constituent elements of honey are alike in both conditions.

In working for honey that is to be extracted, and in placing it upon the market within the reach of the consumer, it should be the first and paramount object of the producer to so mold his efforts as to result in obtaining and supplying his patrons a first-class article.

Honey is very susceptible to any flavor foreign to its own, and when mixed with the other substances, of even a slightly unpleasant flavor, the compound will be very nauseating to a delicate taste. This leads to a nice discrimination, making it an important preliminary object to supply the bees with receptacles that are free from any odor that will impart a deleterious effect to the nectar that may be stored in them. Combs that are allowed to get moldy, or those that have been stored away with honey adhering to them (as is often done after extracting at the close of the season), and allowed

to remain until put upon the hives for use again, are apt to be in an improper condition for receiving the nectar that is to make the limpid honey that should be drawn from the extractor.

SEPARATING THE VARIETIES OF HONEY.

Another item of importance, is that of keeping the honey from various blooms separate, or as nearly so as it is convenient to do. Perhaps this statement may be deemed somewhat extreme by those of extensive experience, but nevertheless I am prone to the belief that the pungent flavor which honey retains from the apple, golden-rod and aster blooms, when mixed with the delicate-flavored honey from the raspberry and white clover, make a compound inferior in flavor to either of the former when separate; the mixing seems to develop a condition, which for want of a more precise term, may be called ferment, culminating in a substance that but slightly resembles either of its components in flavor, odor, or, eventually, gravity.

RIPENING EXTRACTED HONEY.

If it is desirable that honey should retain the rich, mellow flavor so agreeable to a refined taste when used as an aliment, the ripening process merits a special share of attention from the producer. The contrast experienced in eating a ripe, rich, mellow apple, and one of the same kind of fruit at the plucking, is very striking; but however rough this comparison, it is a very fair similitude of what may be experienced in eating honey as soon as it is capped, and after it has remained on the hive, in bright combs, six months or a year. It is not to be inferred from the foregoing that the bee-keeper can allow his honey to remain on the hives half a year, or more, to receive a thorough ripening, but the fact is none the less apparent, that an improvement is enhanced by so doing, that adds to its eating qualities.

The richest honey that I ever used, was obtained from the broken combs of a small after-swarm that was hived in a box, and united with a queenless colony in the fall, by placing over the brood-apartment, and transferred the spring following. Others who were so fortunate as to get a taste of that honey, were enthusiastic in its praise.

BROOD-COMBS FOR EXTRACTING.

Brood-combs containing pollen are not fit receptacles for nectar that is destined for honey that is to be extracted. Pollen that remains in the brood-apartment two seasons, is apt to decay, and when in an advanced stage of decomposition, it imparts a very disagreeable flavor to honey, when thrown from the combs, and mixed in the extractor; even to a degree that it would be diffi-

cult to decide a use to which it might be applied; it certainly is not a food suitable for man, neither is it fit for bees at any season of the year, although it may be fed in small quantities at a time, after having been boiled, without injurious effects, when they can fly frequently.

Radically speaking, it is an unwise procedure to put honey on the market that has been extracted from the brood-combs, in receptacles that will carry it to the table of the consumer—very few there are who will declare it a food "fit for the gods," after once testing its merits. If the "out" qualities of extracted honey do not rank among the extremes, it is as good for some medicinal and manufacturing purposes, or even the minor grades of cooking, as the better qualities.

HONEY-RECEPTACLES FOR MARKETING.

After extracting and ripening, comes the preparation of honey for the market, bringing to the front the choice of shipping receptacles. Here, again, care must be exercised that the fine qualities of superior honey are not injured.

Glass is the best material in which edible honey can be put. Honey-receptacles are the acme of perfection when made of glass.

Tin may be superior to glass for shipping purposes when quantity, and safety of contents are considered; but there is a chance for the contents to be injured by contact with the metal surface, when the surface contains more lead than tin—the acid in the honey and the lead in the tin (?) not compounding an agreeable assimilation. Perhaps some of the reported bad effects experienced from eating extracted honey may have originated from that source. Who knows? There are chemists in the bee-keeping ranks eminently qualified to investigate this point to a certainty, and should it prove a reality, it seems that caution should be exercised, when preparing honey for shipment, to guard against inadvertencies from that direction.

Extracted honey can be kept two years—perhaps longer—in unwaxed kegs, made of staves riven from the heart of white-oak, without any perceptible change in its flavor. It seems that other woods—the heart of old growth spruce, poplar, and Norway pine, of the North; tulip and cypress of the Middle and Southern States—in short, any kind of lumber that will not impart its flavor to any liquid coming in contact with it, or produce acidulation (as would result in using red-oak, birch, or maple, without waxing), would meet the same purpose.

Honey put into receptacles that are sour, is sure to absorb the acid, caus-

ing fermentation, particularly when stored in damp rooms. When used for making vinegar, sour honey will "fill the bill," but when used for cooking, and in *most* medicinal preparations, it behooves the apiarist to guard against the many evils that may result from supplying other than a prime article, if he desires to maintain the present increasing demand for his product, and raise it to the dignity of a staple article.

When well-flavored extracted honey is put upon the market in a way that its purport is assured, the confidence of consumers will be fortified to the extent that the odium of adulteration will become a secondary consideration. With the abundant supply of extracted honey at all times upon the market, at prices that place it within easy reach of any reasonable consumer, there seems to exist no cause for its adulteration, unless it be the promptings of a genuine infatuation to damage the interests of an honest industry; and wrong without the least shadow of a cause; to put it a little more forcibly—the result of habitual malignancy! To charge the crime of adulteration to any particular class who are concerned in the production and handling of extracted honey, would be unjust, as the "cranky" habit of mixing is too deeply inured in the intricate mechanism of productive and commercial doings to admit of being classified. The comparatively low price to which extracted honey has fallen, has, in a great measure, check-mated the adulterator of that product.

As the mixing process by which extracted honey is adulterated, is mostly performed after it leaves the possession of the producers, as I am informed, an effort on their part to wholly prevent adulteration would be futile. The somewhat uncertainly defined adage, that any person has a right to do what he pleases with his own, looms up in opposition to inter-meddling from others.

There seems to be one way by which the much-to-be-desired result might, in a measure, be accomplished, and that would be an association of producers and their factors, having for its object the control of the preparation and sale of honey; guaranteeing the contents of all receptacles by a trademark, authorized only by the association. Could such, or a kindred procedure, be consummated, the association could, when desirable, invoke the National authority for support. When this is done, extracted honey will come to the front, where it now occupies a place on the back-shelf, under the counter, or some other out-of-the-way place, unseen by many would-be consumers.

EXTRACTED HONEY AS A SWEETENER.

With the great majority of sugars, syrups, and confections, represented by authority to contain ingredients that render them noxious food substances, there appears to be no excuse for replacing them with honey, which, when handled as suggested in the foregoing, can be no other than the purest sweet obtainable. There are but few household requirements that honey will not supply, where a sweetening substance is needed; in fact, so broad is its theatre of usefulness, as an article of domestic economy, that no family with a supply of extracted honey need make use of any other sweetening. When the price of "strained" honey ranged from 30 cents to 50 cents per pound, its trade-value placed it beyond the reach of the poor, and often those of moderate means; but now when extracted honey, from the favorite blooms, can be obtained plentifully at from 8 cents to 12 cents per pound, there is no expediency for neglecting to use a pure, health-giving sweet, in place of those of doubtful reputation.

West Cumberland, Maine.

Strange, Sad and Sweet.

"Three things are *strange* to me:
The kiss of the west-wind's breath,
The wonder of life and death,
And the thoughts that the future hath.

Three things are *sad* to me:
The earth on a new-made grave,
The sob of winds in a cave,
And a heart that never gave.

Three things are *sweet* to me:
The song of a bird that flies,
The blue of the summer skies,
And the light in a young wife's eyes."
—Campbell.

SEPARATORS.

Superiority of Sliced Wood Separators Over Others.

Written for the American Bee Journal
BY CHARLES R. ISHAM.

On page 101 is a question on "Making wooden separators." Some of the replies given are so at variance with the experience of myself and honey-producing neighbors who have been extensively using sliced separators for the past several years, that I think it may be interesting to mention a few facts which have been fully confirmed by years of practical use in producing large crops of comb honey for the wholesale city markets.

I believe that I was among the first to use and bring to the notice of honey-producers the utility of sliced wood separators; also to advocate their preference to tin for this use in the apiary.

When my attention was first called to a sliced board of proper thickness, I was at once convinced of its practicability, and in partnership with a friend, we made them for our own use, besides furnishing considerable quantities to others, all of whom, so far as I know, were well pleased with their utility.

The editor, and perhaps some of the readers of the AMERICAN BEE JOURNAL, may recollect of my writing several articles some years ago, advocating the use of wood separators in preference to those cut from tin. Among the reasons then advanced were, that they were warmer, cheaper, lighter, and when cut 1-16 of an inch thick, or 16 to the inch, they gave a better entrance to the sections; that later in the season the bees would travel on them instead of the combs, in passing from the lower to the upper cases.

By practicing what we call "cleating the separator," sections without any insets can be used and filled with comb flush to the edges all around. In no other way can this be accomplished only by using board separators about one-fourth of an inch thick.

When cut from well-seasoned, live, cured lumber, they do not warp or split to any amount to speak of, and are tougher than sawed ones, as the process of steaming and drying gives additional strength and hardness to the lumber.

The machine that we first used, cut them with a twist, but we never slice them with a straight cut, so that when clamped and dried, there are about as flat as a board, and equally as desirable and convenient to put in place as tin.

What has had a great tendency to bring them into disfavor, is a quality of cheaper make, cut by basket machines from unseasoned lumber, which have given dissatisfaction, and have been the means of quite a number discarding their use entirely.

When I first commenced to use wood separators, I had a large quantity of tin ones on hand which were soon discarded and laid to one side. I have some thousands cut from wood, which I have had in use from the first we made, which are, though stained, just as good as they ever were, and it is the exception to find one which has been badly gnawed by the bees. I do not know of any apiarists in this part of the country who are now using those made from metal.

All the sections I now use are dove-tailed and sliced; we also slice the thin boards for shipping-cases, at a great saving of lumber.

I consign, by freight, most of my honey to commission men in the large cities, and generally obtain very satisfactory prices. The cleaner and newer

a section looks, the more attractive is its appearance, and my experience is, that after a section has gone through the process of being filled—no matter how smooth it may have been sandpapered—when put upon the market it does not look any better than those which were steamed and sliced; for, if anything, a polished section against it is ready for market, is more susceptible to stain, and does not look any fancier or better to sell the honey for enough more to make up the difference in cost.

Honey-producers may as well recognize the fact, that the time has gone by for obtaining fancy prices for honey, as it has become a staple rather than a luxury in our city markets. The least expense we incur for fixtures in the apiary, and in shipping its products to market, the better we will be prepared to meet competition, and make the industry a paying and profitable pursuit.

BEE-SCIENCE.

What is Honey? It is Not Digested Nectar.

Written for the American Bee Journal
BY D. MILLARD.

Science, says Webster, is knowledge reduced to system; knowledge which gives a positive statement of truth. An analysis of science would be expressed somewhat thus: Fact, 99; system, 1—total, 100; just system enough to hold the facts together.

Facts are deduced from theory, and are tested by time and practical experience, and any theory that cannot evolve itself up through this test, must remain a theory. Presumptions, surmises and probabilities are only crude theory—not an atom of science about them; and apicultural science, to be a science, should have no exceptions to the above rule.

In the preface to a little volume called "Cook's Manual of the Apiary," edition of 1879, the author says: "I make no apology for inserting so much of science in the following pages. . . . I am convinced that the people are mentally hungry for just such food." Yes, and I ate of it myself, with avidity, and for years I have cherished a high respect for that author and his writings.

On page 104 of that "Manual," the author says:

And what is honey? We can only say that it is a sweet substance, gathered from flowers and other sources, by the bees. We cannot, therefore, give its chemical composition, which would be as valid as the source from which it comes. We cannot even call it sugar; for it may be, and always is, composed of various sugars; and thus it is easy

to understand why honey varies so much in richness, color, flavor, and effect upon our digestion. In fact, it is doubtful if honey is a manufactured article at all. It seems most likely that the bees only collect it. . . . and store it up, that it may administer to their and our wants.

To be sure, some writers contend that it undergoes some change while in the bee's stomach; but the rapidity with which they store, and the seeming entire similarity between honey and sugar fed to them, and the same immediately extracted from the combs, has led me to believe that the transferring power of the stomach is very slight—if it exists at all.

In the foregoing, the writer does not take positive grounds, yet his views upon the subject appear to me to be just as consistent with known facts of to-day, as they did ten years ago.

ACID FOUND IN HONEY.

But as bee-culture advanced, and honey came more into general use, its chemical properties became better understood by many who discovered what was previously known by a few—that honey proper contained an acid that did not exist in nectar as secreted by the flowers—a fact not mentioned by Prof. Cook in his "Manual," but one which has for the last few years caused much speculation as to its origin.

At the convention held in Detroit, in 1885, Prof. Cook said: "No one knows how or when the acid gets into honey;" thus assuming that it is in some way added. It was then and there stated as a belief that formic acid was placed there by the bees during the capping process, which was carried on by the use of their tails, the stings being the best polishing-tool. A statement from Father Langstroth made there at that time, about the ripening of honey, should be read and remembered by every honey-producer in the land.

Some three years ago I inserted an empty comb in a hive during a honey-flow; in about two hours it was taken out, and the newly-gathered honey, shaken out into a cup, into which I introduced a coil of polished steel wire, and after an exposure of over an hour, it showed no perceptible signs of corrosion. The same placed in a cup of old honey, blackened in a very short time, thus proving the presence of acid in the ripened honey.

The litmus paper test will prove the same thing; but neither test proves how it gets there. Acid is a natural inheritor of all vegetable sweets. Nectar is a vegetable sweet; and the only source of pure honey.

THE RIPENING OF HONEY.

If nectar could be gathered from the flowers as fast as secreted, and immediately subjected to a temperature of 150°, Fahr., it would be converted into cane sugar, or nearly so; but this the

bees are unable to do—they can subject it to no higher degree of heat than the interior of the hive. This they do, and at the same time it is excluded from sunlight; for when evaporated at a low temperature, sunlight hastens fermentation, which increases the proportion of acid; so that the process is in part that of a slow evaporation, and partly a curing process similar to that of wine-making, differing in that the material is more dense, and, as the density increases, fermentation decreases until it reaches its equilibrium; it is then in a condition to cap; so that the process is a combined one, properly called "ripening."

HONEY NOT MADE FROM SUGAR.

Sugar syrup fed to bees will be acted upon in precisely the same way, the length of time required varying proportionately with the density of the material and the degree of heat. During the process it is confined to the inner atmosphere of the hive, in close proximity to, or mixed in, the cells with honey and pollen, and all warmed by the heat of the bees' bodies; it becomes, in a measure, assimilated to honey, i. e., it has a similar taste and odor; but easily distinguished by any one familiar with pure honey.

Sugar syrup, or honey digested in the bees' stomach, would be assimilated to the bee's body, and converted into chyme, to be used as such, or further converted into blood to form tissue.

Maple sap exposed to sunlight and a warm atmosphere, will soon sour; but if taken fresh from the tree, and rapidly evaporated at a high temperature, it will make good sugar that will granulate, whereas in the first case it would only make a syrup that might be called "maple glucose," i. e., it would have a maple flavor, but could not by any process be convertible into sugar that would granulate. Much of the so-called maple syrup found in the market is of that kind—purely maple, but not properly produced.

In Prof. Cook's article on page 647, of the AMERICAN BEE JOURNAL for 1889, he fails to make any discrimination between a degree of heat that would only induce fermentation, and one that would rapidly evaporate; neither does he mention any difference in the results. By making separate tests, and a proper continuation of the two degrees of heat, followed by cooling, maple sap would be converted into sour sap, or granulated sugar; cider into vinegar, or a dense substance known as "boiled cider;" sugar syrup into sour syrup or granulated sugar; nectar into sour nectar, or cane-sugar; or, if fermentation be stopped at the proper stage by excluding the atmos-

phere and confining the gasses, the result would be a wine; but if left to the bees, they would, by a combined process as above described, ripen it into honey.

THE GLANDULAR SYSTEM OF BEES.

On page 375 (1889), Prof. Cook seems to have either made a new discovery of bee-glands, or Nature has of late been making some new additions to the glandular system of the bee; at least it is new to me, and I thought myself familiar with all the Professor's writings on the anatomy of bees; however, if the Professor is sure that he is correct, I can only say that so far as the glands are concerned, I have neither the desire, nor the evidence, to justify me in refuting his statement. I was greatly surprised, however, that he should make such a discovery at this late day, and still more so at his supposed functions of the aforesaid glands.

"The probable function of the secretion of those glands," says Prof. Cook, "is to digest the nectar—to change the cane-sugar of nectar to grape-sugar of honey;" and then states positively, that "all honey is partially or completely digested nectar." This would seem like getting from probable to positive, without much consideration. Now it seems probable that that probable function led the Professor to believe that probably that secretion was an acid, which still further led him to believe that probably the oesophagus or honey-sac was probably a digestive organ, and probably lined with proclain with an acid as a digestant, *positively*.

Let me repeat: Acid is an inherent in nectar, and all that is required to produce it is warmth, and this the bees are able to furnish—but they do not digest it!

BEES SUBSISTING ON DRY FOOD.

Nature has provided the human mouth with saliva glands, whose functions are to secrete a fluid to moisten, and thus to aid in preparing for the stomach such food as dried meats, bread, crackers, etc; but we do not need them when we eat green fruit, soups, jellies, etc.; neither do they act on such occasions—Nature did not intend that they should. These glands do not secrete an acid, nor a digesting fluid—only a saliva to assist in preparing dry food for the stomach—the gastric fluid attends to the digesting after it gets there, and is furnished by the glands of the stomach.

It frequently happens that bees get access to dry sugar; or suppose a colony of bees in the early spring is out of stores, but finds a hive or tree in which the bees have died, and left an amount of honey that is cold and

granulated; it is theirs by right of discovery, and their main source of supplies to reproduce themselves. Will they load it into their honey-sacs in dry chunks, and take it home in that condition? No; it is not their way of doing business. The salivary glands will be called into action to dilute it, and it will then be passed into the honey-sac, and taken to the hive. Those glands that lead down to the base of the tongue being also water or salivary glands, will immediately act and still further dilute, and make up for loss during transition, and to aid in regurgitating.

A small portion, perhaps, will be passed to the true stomach below, for the body's use; the main bulk will be deposited in cells near the brood. It is not digested, but diluted with saliva, and thus it is in a condition to be digested by the nurse-bees, and, in time, will all be used in brood-rearing.

NECTAR—NOT DILUTED OR DIGESTED.

But fruit-bloom opens, and the field-bees or honey-gatherers fill their sacs with the pure nectar; it is thin and watery, and needs only evaporation. The saliva glands are not excited to action; they play no part. It is harvest time with the bees—they go and come, load and unload, as rapidly as possible, and deposit their loads directly into the cells, free from any secretion whatever, to be acted upon as heretofore described; it is then pure, ripe honey.

In very early spring, the old bees act as nurses, but as the season advances, these take to the field work, and the nursing is assigned to the younger bees, which, no doubt, keep their saliva organs in constant action, as they have continuous use for them.

Mendon, Mich., Feb. 22, 1890.

SWARMING.

Management of an Apiary During Swarming Time.

Written for the American Bee Journal
BY FRANK COVERDALE.

It has been stated in the BEE JOURNAL that more honey can be produced by allowing the colonies to swarm once apiece, than to allow no increase at all; and the latter I think will work best in all localities, simply because it takes a strong colony at all times to gather a good crop of honey.

In order to accomplish this, we must have hives with loose bottom-boards, and when a swarm issues, hive it as usual, move the old or parent hive, and place the newly-hived swarm in its place. Put over them a perforated

wood-zinc honey-board; then take the unfinished sections from the old hive, and place them on the newly-hived swarm, and put the old brood-chamber on top of all. The swarm below, where the queen is, should be furnished with full sheets of foundation, as I think that bees treated in this way will be more apt to build drone-comb. The reason for this, I think, is because such large numbers of bees get to work in the brood-chamber for awhile at first, that they build comb faster than the queen can keep it supplied with eggs, and then of course the building of drone-comb begins.

Keep an empty section-case close, or next to, the new brood-chamber. In seven or eight days cut all queen-cells from the old brood-chamber on top.

In working with this system, it is best to have the sections protected next to the old brood-chamber, and for this purpose oil-cloth will answer very well. Double over one corner a little, so as to leave open enough room for the bees to pass through.

It will be seen that we have a great number of bees in one hive, with rapid re-inforcements, and no more likely to swarm again than would the new colony hived by itself—this I know from personal experience. These old brood-chambers on top, after the young bees are all hatched, should be carried away, and the honey extracted, or put away for other purposes for wintering, in case the fall crop should be a failure, and if this is found unnecessary, then extract and prepare the honey for market.

Keep your eyes on the old combs occasionally; moth-larvæ will very likely be in them, along with pollen; in this case, sulphur them, which will destroy the moth-larvæ.

After this, if any swarms should issue, treat them as before, only use full frames of comb, of which you will by this time have plenty on hand, and for next year's use, besides an apiary in good running order to produce large crops of honey, if the season is at all good.

This allows only the production of some extracted and comb honey in the same yard; but the extracted honey proves to be fully as profitable, if not more so, than comb honey.

USING THICK TOP-BARS.

I used about 200 brood-frames with thick top-bars the past season, $\frac{3}{4}$ of an inch wide and $\frac{1}{2}$ of an inch deep, with a V-shape below of the above depth. I used 8 frames to the foot. They aid very much in preventing brace or burr combs. The space should be a little less than $\frac{1}{2}$ of an inch above them, with top-bars at least one inch wide, and if anything, a little wider.

Welton, Iowa.

SWARM-HIVER.**Automatic Self-Hiving Arrangement for Swarms.***Written for the American Bee Journal*

BY FRANCIS D. LACY.

I notice on page 27 a representation of Mr. Alley's automatic swarmer; and as I have also applied for a patent upon my automatic swarmer, I want to show my plan in the AMERICAN BEE JOURNAL.

My swarm-hiver was tested last season, when not so well formulated as the description here given, and I believe it will never fail to work successfully. I believe that Mr. Alley's will

hives made upon this plan, and will have all those occupied with bees, fitted for this attachment, in early spring.

SEASON OF 1889.**Report for Last Year—Honey Almanacs, etc.***Written for the American Bee Journal*

BY H. J. ROGERS.

My report for 1889 is about as follows: I commenced with 75 colonies, which had wintered perfectly in double-walled chaff hives, on the summer stands. The season proved to be altogether too wet and cold for the

this season, and trust to advertising through the "Almanac" to do the selling.

The AMERICAN BEE JOURNAL is doing a great deal in this part of the country towards improving the science of bee-culture. A number of bee-keepers are now its regular readers.

My bees are wintering finely on the summer stands. I can see no reason for not having a good season this year; basswood yielded nothing last season, on account of frost in May, so we have a reasonable expectation of getting some nectar from that source this year. I believe in trusting Providence in bee-keeping, as in everything else. I also think it pays to do everything in the very best manner possible, in the work of apiculture. It is the little things, properly attended to, or neglected, which make our pursuit successful, or otherwise, from a financial point of view.

LA GRIPPE AND THE WEATHER.

I notice that our fraternity are not exempt from La Grippe, although Dr. A. B. Mason (see page 115) seems to carry the idea that honey is a sure preventive. I have had a tussle with the "Enemy," and he has not abandoned the field yet, although I eat honey nearly every day in the year; however, I am very sure that honey is excellent for a cold.

The weather here continues mild—at no time has there been more than one inch of snow on the ground. The mercury lingers along in the forties—sometimes it gets as high as 60°, but not often. I do not think that brood-rearing has progressed very much as yet, and I think that every indication points to a successful season in store for us as bee-keepers.

Stannard's Corners, N. Y., Feb. 24.

NEW YORK.**Report of the State Bee-Keepers' Convention.****SECOND DAY.**

The morning session began at 9:30 a.m., on Feb. 5, 1890, when President Elwood announced the appointment of these committees:

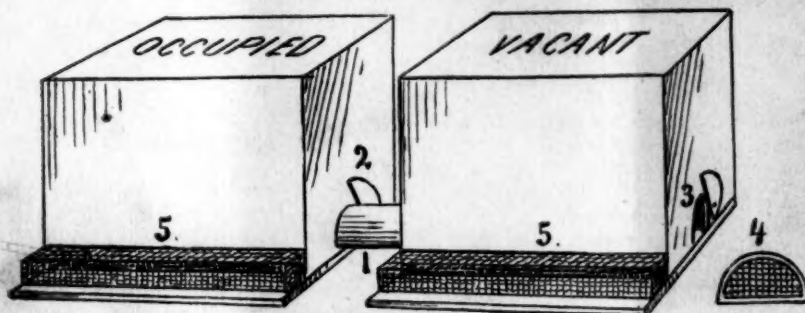
Question-box—G. M. Doolittle, W. L. Coggsall, F. H. Cyrenius.
Resolutions—C. G. Dickinson, G. H. Ashby, W. E. Clark.

Exhibits—F. H. Cyrenius, E. D. Keenan, Thomas Pierce.

Exchange—I. L. Scofield, W. L. Coggsall, O. L. Hershisier.

Out-Apiaries for Comb Honey.

The first essay of the day was by A. E. Manum, of Bristol, Vt., and was entitled: "How to run out apiaries for



The Lacy Automatic Swarm-Hiver.

- 1.—Semi-circular tube of galvanized iron, not perforated, with flat side downward.
- 2.—Button, made to open and close at will, so as to insert the tube, and close when the tube is taken out. The flat side of the tube is level with the inside of the bottom-board, so that the bees can walk from the occupied to the vacant hive, on the level.
- 3.—Opening opposite, in vacant hive, from the tube attachment. All hives are to have corresponding openings upon each side, for tube attachments.
- 4.—Queen-excluder to apply to the opening 3, to give light through the vacant hive, and through the tube to the occupied hive, which light attracts the bees to the empty hive, when ready to swarm.
- 5.—5. Queen-excluders—at about the same time, are to be placed at the entrances of the hives, to prevent the escape of the queen.

The tube attachment is subject to modification for shape, as convenience requires.

work successfully, but there are several reasons why I like my plan the best.

In the use of this swarmer, the hives will go by pairs when put out in the spring, and generally the bees will work into the vacant hive, without any indication of swarming; so it will seldom be necessary to apply the queen-excluder to the front entrances. The lower plane of the tube gives freedom for the bees to walk on the level of the bottom of the hive, from one hive to the other, and both hives become common to the bees.

The queen-excluder in front of the hive is quite in the way of the working bees, and for this reason should not be used, if it can be avoided; and with my plan it will seldom need to be used.

The openings upon the sides of the hives, with the button, as I have represented, will often be very convenient for ventilation when hives are in the cellar, or on hot, sultry days when in the apiary. I am having all of my

best results; however, the flow was continuous after July 1, and until September I had no trouble in keeping the bees well up in the supers.

Swarming was late—most of my swarms issued after July 1. I had about 40 colonies that cast one swarm apiece, but I only increased them 8, as I wanted honey more than increase. By keeping each hive very full of bees, I succeeded in getting a fair crop of honey, all in the comb; 4,000 pounds of white honey, and 1,200 pounds of buckwheat constitutes my crop of marketable honey for 1889. Most of my honey was sold in New York city, at a fair price.

HONEY ALMANACS AN ADVERTISER.

I am much impressed with the Honey Almanac medium of advertising; and will have to have a thousand or more this year. My honey was all disposed of last year before Nov. 1. I have never extracted any honey for our home markets, but I shall do so

comb honey in connection with the home apiary." Among other things the essay stated the following facts:

"My out-apiaries are located from 5 to 15 miles from my home apiary, at the base of a mountain on the west side. They are of easy access. During the months of April and May, with one experienced assistant, I visit each apiary once a week. An assistant remains at each apiary during the swarming and honey season. I aim to have from 100 to 150 colonies in each apiary.

"My supplies for the out-apiaries are prepared at the home apiary in winter, and are distributed in early spring. After much experimenting, I find it advisable to permit the bees to swarm once, giving a portion of two, and sometimes three, swarms in one hive, and returning a portion of each swarm to the hives from which they came, thus keeping each colony in working condition. This plan, of course, gives me 25 to 50 per cent. of increase, but I get more honey. Out-apiaries cannot be run as economically as the home apiary."

"Betsinger's long-tried system of non-swarming," was explained by N. N. Betsinger, of Marcellus, N. Y., who told of the best system to prevent swarming, and the good results which followed. Swarming is under control of the leaders, and induced by them. The longer bees are out on a limb, after leaving the hive, the less intense will the swarming-fever become.

AFTERNOON SESSION.

At the afternoon session, which began at 1:30 o'clock, the following officers were elected: President, P. H. Elwood, of Starkville; Vice-President, I. L. Scofield, of Chenango Bridge; Secretary, George H. Knickerbocker, of Pine Plains; and Treasurer, N. N. Betsinger, of Marcellus.

The next meeting will be held in Albany, N. Y.

The leading essay of the afternoon session was by Ernest R. Root, of Medina, O., upon "The fraternity—the honey-producer, queen-rearers, supply dealers and editors—their obligations one to another."

Mr. Root was not present, and his essay was read by Secretary Knickerbocker. The principal points of the essay are as follows:

The editor and supply dealer very largely control progress in apicultural matters—particularly the former. Bee-papers are designed for the mutual exchange of ideas. But, obviously, there are some ideas and inventions that it were better if they had never been put before the bee-keepers. The editor should carefully discriminate between the useless and the useful.

To be able to do this, he should be a bee-keeper himself, and alive to the demands of the times. He holds in his hand the throttle-valve of progress. His readers will be pretty apt to fall into his line of thinking, and if that line is progression, they will be progressive; if he is conservative, and clings to the "good old things" of the fathers, his readers will be such.

The editor of one of the leading bee-keeping papers of France, even up to the time of his death, which occurred recently, used his influence to discourage the introduction of movable-frame hives among his patrons. The result is, that a very large portion of the bee-keepers of that country are behind the times. The editor of one of the other bee-keeping periodicals of that country advocated, just as vehemently, the use of the movable frame, and he advocated it, too, as zealously as his opponent had discouraged the use of it. The subscribers to the paper that advocated the movable-frame, are progressive bee-keepers, and are using what is called the "Dadant hive and system," and, altogether, are a progressive lot of bee-keepers. While the more advanced and intelligent class of bee-keepers will not be swayed by a non-progressive bee-paper, the mass of its readers will follow closely in its wake.

There is not a country that is more progressive in bee-culture than the United States; and this progress is largely due to its progressive bee-papers. I find that a large number of bee-keepers have a "baby" in the shape of a hive, frame, or some appurtenance connected with bee-culture. Some of these implements are practical, and are giving large results in the production of comb and extracted honey; and, again, others are as cumbersome as they are expensive and impracticable. To place a doubtful invention before the bee-keeping public, and herald it as a "big thing," or even let it stand on its own merits, would do harm to the fraternity. Old bee-keepers would not be misled, but a large number of amateur bee-keepers would very likely want to invest their first few dollars in something of the sort. It is the business of the editor to keep down useless inventions; false theories, false conclusions in regard to the workings of our little bee, should be relegated to the waste-basket. The editor should consider the needs of the times.

The obligation which a supply dealer bears to the fraternity, is very similar to that of the editor. He should refuse to make useless contrivances, and sell only that which may be of use to his customers. For a similar reason, the queen-breeder should put only good

queens upon the market; and the honey-producer should aim to produce the very best honey, and should have the same carefully graded. It is the duty of the fraternity to keep posted, to keep out of the ruts of old-fogyism, and believe all to be honest, until they have shown themselves to be dishonest.

ERNEST R. ROOT.

The above essay was followed by a discussion of the topic, "Is it advisable to introduce laying queens to a parent colony after having cast a swarm, or having been divided artificially?"

Mr. Cyrenius thought that under certain circumstances it would be advisable to introduce the queen. It depended considerably upon what the bee-keeper had in view.

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—♦—♦—♦—
We always extend the term of renewal subscriptions from the date of expiration on our books. Present subscribers whose time may expire one, two, three or six months hence, can safely renew now, without fear of loss thereby.

SWARM-HIVER.**Automatic Self-Hiving Arrangement for Swarms.***Written for the American Bee Journal*

BY FRANCIS D. LACY.

I notice on page 27 a representation of Mr. Alley's automatic swarmer; and as I have also applied for a patent upon my automatic swarmer, I want to show my plan in the AMERICAN BEE JOURNAL.

My swarm-hiver was tested last season, when not so well formulated as the description here given, and I believe it will never fail to work successfully. I believe that Mr. Alley's will

hives made upon this plan, and will have all those occupied with bees, fitted for this attachment, in early spring.

SEASON OF 1889.**Report for Last Year—Honey Almanacs, etc.***Written for the American Bee Journal*

BY H. J. ROGERS.

My report for 1889 is about as follows: I commenced with 75 colonies, which had wintered perfectly in double-walled chaff hives, on the summer stands. The season proved to be altogether too wet and cold for the

this season, and trust to advertising through the "Almanac" to do the selling.

The AMERICAN BEE JOURNAL is doing a great deal in this part of the country towards improving the science of bee-culture. A number of bee-keepers are now its regular readers.

My bees are wintering finely on the summer stands. I can see no reason for not having a good season this year; basswood yielded nothing last season, on account of frost in May, so we have a reasonable expectation of getting some nectar from that source this year. I believe in trusting Providence in bee-keeping, as in everything else. I also think it pays to do everything in the very best manner possible, in the work of apiculture. It is the little things, properly attended to, or neglected, which make our pursuit successful, or otherwise, from a financial point of view.

LA GRIPPE AND THE WEATHER.

I notice that our fraternity are not exempt from La Grippe, although Dr. A. B. Mason (see page 115) seems to carry the idea that honey is a sure preventive. I have had a tussle with the "Enemy," and he has not abandoned the field yet, although I eat honey nearly every day in the year; however, I am very sure that honey is excellent for a cold.

The weather here continues mild—at no time has there been more than one inch of snow on the ground. The mercury lingers along in the forties—sometimes it gets as high as 60°, but not often. I do not think that brood-rearing has progressed very much as yet, and I think that every indication points to a successful season in store for us as bee-keepers.

Stannard's Corners, N. Y., Feb. 24.

NEW YORK.**Report of the State Bee-Keepers' Convention.****SECOND DAY.**

The morning session began at 9:30 a.m., on Feb. 5, 1890, when President Elwood announced the appointment of these committees:

Question-box—G. M. Doolittle, W. L. Coggsall, F. H. Cyrenius.

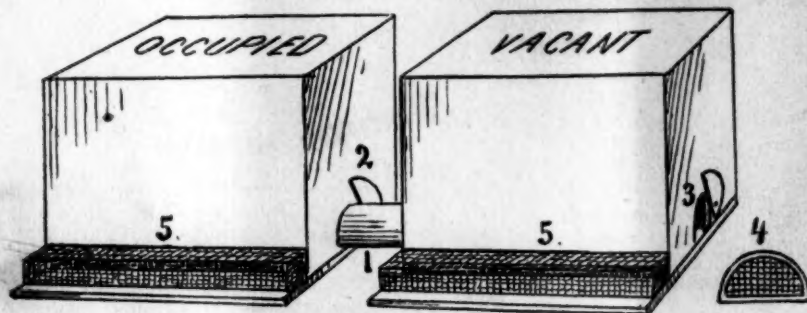
Resolutions—C. G. Dickinson, G. H. Ashby, W. E. Clark.

Exhibits—F. H. Cyrenius, E. D. Keenan, Thomas Pierce.

Exchange—I. L. Scofield, W. L. Coggsall, O. L. Hershisier.

Out-Apiaries for Comb Honey.

The first essay of the day was by A. E. Manum, of Bristol, Vt., and was entitled: "How to run out apiaries for



The Lacy Automatic Swarm-Hiver.

- 1.—Semi-circular tube of galvanized iron, not perforated, with flat side downward.
- 2.—Button, made to open and close at will, so as to insert the tube, and close when the tube is taken out. The flat side of the tube is level with the inside of the bottom-board, so that the bees can walk from the occupied to the vacant hive, on the level.
- 3.—Opening opposite, in vacant hive, from the tube attachment. All hives are to have corresponding openings upon each side, for tube attachments.
- 4.—Queen-excluder to apply to the opening 3, to give light through the vacant hive, and through the tube to the occupied hive, which light attracts the bees to the empty hive, when ready to swarm.
- 5.—5. Queen-excluders—at about the same time, are to be placed at the entrances of the hives, to prevent the escape of the queen.

The tube attachment is subject to modification for shape, as convenience requires.

work successfully, but there are several reasons why I like my plan the best.

In the use of this swarmer, the hives will go by pairs when put out in the spring, and generally the bees will work into the vacant hive, without any indication of swarming; so it will seldom be necessary to apply the queen-excluder to the front entrances. The lower plane of the tube gives freedom for the bees to walk on the level of the bottom of the hive, from one hive to the other, and both hives become common to the bees.

The queen-excluder in front of the hive is quite in the way of the working bees, and for this reason should not be used, if it can be avoided; and with my plan it will seldom need to be used.

The openings upon the sides of the hives, with the button, as I have represented, will often be very convenient for ventilation when hives are in the cellar, or on hot, sultry days when in the apiary. I am having all of my

best results; however, the flow was continuous after July 1, and until September I had no trouble in keeping the bees well up in the supers.

Swarming was late—most of my swarms issued after July 1. I had about 40 colonies that cast one swarm apiece, but I only increased them 8, as I wanted honey more than increase. By keeping each hive very full of bees, I succeeded in getting a fair crop of honey, all in the comb; 4,000 pounds of white honey, and 1,200 pounds of buckwheat constitutes my crop of marketable honey for 1889. Most of my honey was sold in New York city, at a fair price.

HONEY ALMANACS AN ADVERTISER.

I am much impressed with the Honey Almanac medium of advertising; and will have to have a thousand or more this year. My honey was all disposed of last year before Nov. 1. I have never extracted any honey for our home markets, but I shall do so

comb honey in connection with the home apiary." Among other things the essay stated the following facts:

"My out-apiaries are located from 5 to 15 miles from my home apiary, at the base of a mountain on the west side. They are of easy access. During the months of April and May, with one experienced assistant, I visit each apiary once a week. An assistant remains at each apiary during the swarming and honey season. I aim to have from 100 to 150 colonies in each apiary.

"My supplies for the out-apiaries are prepared at the home apiary in winter, and are distributed in early spring. After much experimenting, I find it advisable to permit the bees to swarm once, giving a portion of two, and sometimes three, swarms in one hive, and returning a portion of each swarm to the hives from which they came, thus keeping each colony in working condition. This plan, of course, gives me 25 to 50 per cent. of increase, but I get more honey. Out-apiaries cannot be run as economically as the home apiary."

"Betsinger's long-tried system of non-swarming," was explained by N. N. Betsinger, of Marcellus, N. Y., who told of the best system to prevent swarming, and the good results which followed. Swarming is under control of the leaders, and induced by them. The longer bees are out on a limb, after leaving the hive, the less intense will the swarming-fever become.

AFTERNOON SESSION.

At the afternoon session, which began at 1:30 o'clock, the following officers were elected: President, P. H. Elwood, of Starkville; Vice-President, I. L. Scofield, of Chenango Bridge; Secretary, George H. Knickerbocker, of Pine Plains; and Treasurer, N. N. Betsinger, of Marcellus.

The next meeting will be held in Albany, N. Y.

The leading essay of the afternoon session was by Ernest R. Root, of Medina, O., upon "The fraternity—the honey-producer, queen-rearers, supply dealers and editors—their obligations one to another."

Mr. Root was not present, and his essay was read by Secretary Knickerbocker. The principal points of the essay are as follows:

The editor and supply dealer very largely control progress in apicultural matters—particularly the former. Bee-papers are designed for the mutual exchange of ideas. But, obviously, there are some ideas and inventions that it were better if they had never been put before the bee-keepers. The editor should carefully discriminate between the useless and the useful.

To be able to do this, he should be a bee-keeper himself, and alive to the demands of the times. He holds in his hand the throttle-valve of progress. His readers will be pretty apt to fall into his line of thinking, and if that line is progression, they will be progressive; if he is conservative, and clings to the "good old things" of the fathers, his readers will be such.

The editor of one of the leading bee-keeping papers of France, even up to the time of his death, which occurred recently, used his influence to discourage the introduction of movable-frame hives among his patrons. The result is, that a very large portion of the bee-keepers of that country are behind the times. The editor of one of the other bee-keeping periodicals of that country advocated, just as vehemently, the use of the movable frame, and he advocated it, too, as zealously as his opponent had discouraged the use of it. The subscribers to the paper that advocated the movable-frame, are progressive bee-keepers, and are using what is called the "Dadant hive and system," and, altogether, are a progressive lot of bee-keepers. While the more advanced and intelligent class of bee-keepers will not be swayed by a non-progressive bee-paper, the mass of its readers will follow closely in its wake.

There is not a country that is more progressive in bee-culture than the United States; and this progress is largely due to its progressive bee-papers. I find that a large number of bee-keepers have a "baby" in the shape of a hive, frame, or some appurtenance connected with bee-culture. Some of these implements are practical, and are giving large results in the production of comb and extracted honey; and, again, others are as cumbersome as they are expensive and impracticable. To place a doubtful invention before the bee-keeping public, and herald it as a "big thing," or even let it stand on its own merits, would do harm to the fraternity. Old bee-keepers would not be misled, but a large number of amateur bee-keepers would very likely want to invest their first few dollars in something of the sort. It is the business of the editor to keep down useless inventions; false theories, false conclusions in regard to the workings of our little bee, should be relegated to the waste-basket. The editor should consider the needs of the times.

The obligation which a supply dealer bears to the fraternity, is very similar to that of the editor. He should refuse to make useless contrivances, and sell only that which may be of use to his customers. For a similar reason, the queen-breeder should put only good

queens upon the market; and the honey-producer should aim to produce the very best honey, and should have the same carefully graded. It is the duty of the fraternity to keep posted, to keep out of the ruts of old-fogyism, and believe all to be honest, until they have shown themselves to be dishonest.

ERNEST R. ROOT.

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CONVENTION DIRECTORY.

1890. *Time and place of meeting.*

- Mar. 20.—Carolina, at Charlotte, N. C.
N. P. Lyles, Sec., Derita, N. C.
- April 16, 17.—Missouri State, at Marshall, Mo.
J. W. Rouse, Sec., Santa Fe, Mo.
- May 1.—Southwestern Wisconsin, at Boscobel, Wis.
Benj. E. Rice, Sec., Boscobel, Wis.
- May 3.—Susquehanna Co., at Hopbottom, Pa.
H. M. Seeley, Sec., Harford, Pa.
- May 7, 8.—Texas State, at Greenville, Tex.
J. N. Hunter, Sec., Celeste, Tex.
- May 19.—Northern Illinois, at Rockford, Ills.
D. A. Fuller, Sec., Cherry Valley, Ills.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of the time and the place of each future meeting.—THE EDITOR.

SELECTIONS FROM
OUR LETTER BOX

Maples and White Clover.

My bees wintered well. On Feb. 3, the maple trees were alive with bees—something I never saw before in this vicinity. The prospect for white clover is the best I ever saw in this vicinity.

ALLEN LEWTON.

Quincy, Ills., Feb. 22, 1890.

Ants Very Troublesome.

I wish that those who make glass tableware, would make and send out a lot of preserve or honey stands, with a little cup around the stem that will hold a few spoonfuls of coal-oil, so that it will keep out the ants. They are so many and so troublesome that it is almost out of the question to keep them out of anything that is sweet. I run a kind of huckster wagon; raise vegetables, and sell them and my honey all over the town and country. When I drive up to a house, and try to sell honey, the answer is, "Well, Uncle Jack, we want the honey, but the ants are so bad that I will get but one mess out of it before it will be rank with the ants. They get in my preserves and everything that they can." I have inquired a dozen times for the glass article referred to above, but I cannot find them. If the people all had it, it would be a great help to the sale of honey in the South.

JOHN H. CHRISTIE.

Dyersburg, Tenn.

Onion Honey—Visiting Apiaries.

As I was in the beautiful city of Detroit on Feb. 15, I visited the large apiary of Eber W. Cottrell, which consists of about 100 colonies of Italian and hybrid bees, with all the appurtenances necessary to the production of comb honey. The hives are arranged in regular rows, on a smoothly-kept grassy lawn; the apiary is situated on the Grand River Road, about four miles from the City Hall, and is quite near the celebrated onion-seed farm of D. M. Ferry, consisting of 120 acres. Having heard that honey from onions was unpalatable, and consequently unsalable, I asked Mr. Cottrell what his experience had been through his ten years of bee-keeping in that locality. His reply was, that although while the bees were working on the onions, it was easy to detect the disagreeable aroma escaping from the hives, but that he would defy an expert to detect any taste of onions about the honey after it was properly ripened; and that he had sold in the city markets,

and to regular customers, for years without any complaint. He thinks that this is an erroneous impression, or a sensational article emanating from the tired brain of a city reporter, at a loss to supply an article for his paper.

On Feb. 16 I visited the apiary of Otto Kleinow, who has some 60 colonies, mostly pure Italians, in a variety of chaff hives, which are his favorite. Mr. Kleinow's location is a beautiful and an historical one, he being opposite Fort Wayne. The inmates of Mr. K's hives I saw "drilling" on the green; but I think that the forces of Mr. Kleinow's fort were more numerous than that of Uncle Sam's; and I think that in case of an invasion, the Commander should call on Mr. Kleinow for re-enforcements.

Lakeview, Mich.

S. J. YOUNGMAN.

Cage for Mailing Bees.

I send a cage for mailing samples of bees. It is not exactly my invention, as I got the idea from the Peet cage. It is so light that the postage is only one cent, and it can be made very cheaply (less than one cent each, I think). I intend to send out hundreds of samples in these cages, next season.

S. F. TREGO.

Swedona, Ills.

[The cage is light, and that is its only recommendation. It is weak, and should never be trusted in the mails with bees in it—for the law calls for a double screen of wire-cloth, so that the bees could not sting through it. It is not up to the requirements of the Postal Regulations.—Ed.]

Bees Having Frequent Flights.

Bees are doing well so far. I have lost only one colony out of 75. They have a good flight about once or twice a week, and have consumed a great deal of honey so far this winter. I hope to give them my undivided attention the coming season, and need the BEE JOURNAL to help me along.

P. P. COLLIER.

Rush Hill, Mo., Feb. 25, 1890.

Foul Brood and Its Effect.

My report for 1889 is—no honey, and no bees to winter, all having died of foul brood early in the fall. I will burn everything connected with them, and start again with a nucleus. There are no bees within thirty miles of me—where did the foul brood come from? Times are "tight" here. We can sell no butter, eggs, poultry, a cow or a horse for money.

ANDREW CRAIG.

Empire, S. Dakota, Feb. 22, 1890.

[From the woods, perhaps, where some bees may have been diseased.—Ed.]

Joining the Bee-Keepers' Union.

I want to become a member of the National Bee-Keepers' Union. I have been in the bee-business for 16 years, and as Mr. Heddon says, I want to become a member while there is no cloud of trouble gathering over me; so my chances are to battle for my fellow bee-keepers, as well as for myself. Joining the Union is something that some other bee-keepers should not meditate over, but should become members at once. If it had proved to be of no use to the bee-keeper, then we might say farewell to the Union, but it has proved to be a power in behalf of the apiarists. I think that I am like a great many other bee-keepers—procrastination has us by the throat, and we cannot free ourselves.

While others are battling for our pursuit, I want to be one to see that our "bee-boat" can surmount the billows in any clime. I think that it is a safe "boat" to ride in, and the ticket is so cheap—only \$1.00—it seems to me that all bee-keepers ought to be on board to see that we all sail high and dry.

B. F. FRAZEL.

Washburn, Ills., Feb. 20, 1890.

Keeping Bees for Fun, etc.

I keep bees just for the fun of it, and to supply my family with honey to eat. I commenced the season of 1889 with 8 colonies, increased them to 14 strong colonies, and produced 1,600 pounds of extracted honey, and 400 pounds of comb honey. I have Italian bees, and winter them in the cellar. Golden-rod grows profusely in this locality, but produces no honey.

Knox City, Mo.

S. SCHOFIELD.

Results of the Past Season.

I live in a good bee-country—there is lots of maple, basswood and white clover. The bees did well last year, but there was too much swarming. I had one colony that stored 100 pounds of honey besides casting 4 swarms—something I never heard of before. My bees were in the cellar until Feb. 16, when I had them taken out, because it was too warm; they had a good flight. I have 30 colonies, all in good condition. Will they stand the cold weather now outside until spring? I sold my comb honey at 10 and 12½ cents per pound.

FLORIAN RUEDY.

Buffalo, Wis., Feb. 20, 1890.

[We have had some cold weather here since Feb. 16, and perhaps you have already put the bees back in the cellar. If not, they may get along very well if it does not get cold enough to destroy the brood that some are rearing, perhaps. "Spring dwindling" is the only thing to be feared now.—Ed.]

La Grippe and Its Victims.

I have just read what Dr. A. B. Mason has to say on page 115, about honey for *La Grippe*. Now it strikes me that honey may prevent *La Grippe*, and may be good to use after taking the "plague." Our three children have not shown any signs of the trouble, while my wife and I have both had a bad case of it. We have honey on our table at every meal, and the children eat lots of it, while my wife and I seldom taste it. I received the worst shaking up by *La Grippe* that I have had for a long time. It is now four weeks since it "gripped" me, and I am not well yet. I am able to be at the factory, and attend to a little office work, but I seem to gain very slowly. Although we are very busy, we had to shut down the factory (of Smith & Smith) for two weeks, on account of so many of us having *La Grippe*. Our foreman (my brother) had to lay off for five weeks.

J. H. SMITH.

Kenton, O., Feb. 20, 1890.

[It is not a friendly grip, and none of us can appreciate it. We are glad that you are improving.—Ed.]

☞ If any one wants a club of two or more weekly or monthly periodicals, besides one or both of our Journals—send us a Postal Card, and we will then quote the lowest possible price, by return mail. The number is too great to enumerate.



ALFRED H. NEWMAN,
BUSINESS MANAGER.

Business Notices.

Subscribers who do not receive their papers promptly, should notify us at once.

Money in Potatoes, by Mr. Joseph Greiner. Price, 25 cents, postpaid. For sale at this office.

Send us one **NEW** subscriber, with \$1.00, and we will present you with a nice Pocket Dictionary.

Red Labels are nice for Pails which hold from 1 to 10 lbs. of honey. Price \$1.00 per hundred, with name and address printed. Sample free.

Calvert's No. 1 Phenol, mentioned in *Cheshire's Pamphlet* on pages 16 and 17, as a cure for foul brood, can be procured at this office at 25 cents per ounce, by express.

The date on the wrapper-label of this paper indicates the end of the month to which you have paid. If that is past, please send us a dollar to advance that date another year.

Please send us the names of your neighbors who keep bees, and we will send them sample copies of the *BEE JOURNAL*. Then please call upon them and get them to subscribe with you.

Any of the Political Dollar Weekly Newspapers will be clubbed with our *JOURNAL* at \$1.85 for the two; or with both our *HOME JOURNAL* and *BEE JOURNAL* for \$2.50 for all three papers.

As there is another firm of "Newman & Son" in this city, our letters sometimes get mixed. Please write *American Bee Journal* on the corner of your envelopes to save confusion and delay.

Systematic work in the Apiary will pay. Use the *Apiary Register*. Its cost is trifling. Prices:

For 50 colonies (120 pages)\$1 00
" 100 colonies (220 pages) 1 25
" 200 colonies (420 pages) 1 50

When talking about Bees to your friend or neighbor, you will oblige us by commending the *BEE JOURNAL* to him, and taking his subscription to send with your renewal. For this work we will present you with a copy of the *Convention Hand Book*, by mail, postpaid. It sells at 50 cents.

We offer the *Monthly Philadelphia Farm Journal*, and either the *AMERICAN BEE JOURNAL* or *ILLUSTRATED HOME JOURNAL* for one year, for the small sum of \$1.20. Or, we will give it free for one year to any one who will send us one new subscriber for either of our Journals with \$1.00 (the subscription price).

CLUBBING LIST.

We Club the *American Bee Journal* for a year, with any of the following papers or books, at the prices quoted in the **LAST** column. The regular price of both is given in the first column. One year's subscription for the *American Bee Journal* must be sent with each order for another paper or book:

	Price of both.	Club
The <i>American Bee Journal</i>	\$1 00....	
and Gleanings in Bee-Culture....	2 00....	1 75
Bee-Keepers' Guide.....	1 50....	1 40
Bee-Keepers' Review.....	1 50....	1 40
The Apiculturist.....	1 75....	1 65
Bee-Keepers' Advance.....	1 50....	1 40
Canadian Bee Journal.....	2 00....	1 80
The 7 above-named papers.....	5 25....	5 00
and Langstroth Revised (Dadant) 3 00....	2 75	
Cook's Manual (1887 edition) 2 25....	2 00	
Quinby's New Bee-Keeping. 2 50....	2 25	
Doolittle on Queen-Rearing. 2 00....	1 75	
Bees and Honey (Newman).....	2 00....	1 75
Binder for Am. Bee Journal. 1 00....	1 50	
Dzierzon's Bee-Book (cloth). 3 00....	2 00	
Root's A B C of Bee-Culture 2 25....	2 10	
Farmer's Account Book.....	4 00....	2 20
Western World Guide.....	1 50....	1 30
Heddon's book, "Success,".....	1 50....	1 40
A Year Among the Bees.....	1 75....	1 50
Convention Hand-Book.....	1 50....	1 30
Weekly Inter-Ocean.....	2 00....	1 70
Toronto Globe (weekly).....	2 00....	1 70
History of National Society. 1 50....	1 25	
American Poultry Journal.....	2 25....	1 50

Convention Notices.

The spring meeting of the Northern Illinois Bee-Keepers' Association, will meet at the residence of D. A. Fuller, in Cherry Valley, Ill., on May 16th, 1890. D. A. FULLER, Sec.

The next regular meeting of the Southwestern Wisconsin Bee-Keepers' Association will be held at Boscobel, Wis., on Thursday, May 1, 1890, at 10 a.m. BENJ. E. RICE, Sec.

The 12th annual session of the Texas State Bee-Keepers' Association, will be held at Greenville, Hunt Co., Texas, on May 7 and 8, 1890. All interested are invited. J. N. HUNTER, Sec.

The spring meeting of the Missouri State Bee-Keepers' Association, will be held at Marshall, Saline Co., Mo., on Wednesday and Thursday, April 16 and 17, 1890, in the County Court Room. Reduced rates at the hotel, for bee-keepers, have been secured, and a committee is at work to secure rates on the railroads. A cordial invitation is extended to bee-keepers everywhere, and especially to those of Missouri. A number of essays from prominent bee-men are expected, and an interesting time is anticipated. J. W. ROUSE, Sec.

CATARRH.

CATARRHAL DEAFNESS—HAY FEVER.

A New Home Treatment.

Sufferers are not generally aware that these diseases are contagious, or that they are due to the presence of living parasites in the lining membrane of the nose and eustachian tubes. Microscopic research, however, has proved this to be a fact, and the result of this discovery is that a simple remedy has been formulated whereby catarrh, catarrhal deafness and hay fever are permanently cured in from one to three simple applications made at home by the patient once in two weeks.

N. B.—This treatment is not a snuff or an ointment; both have been discarded by reputable physicians as injurious. A pamphlet explaining this new treatment is sent free on receipt of stamp to pay postage, by A. H. Dixon & Son, 337 and 339 West King Street, Toronto, Canada.—*Christian Advocate*.

Sufferers from Catarrhal troubles should carefully read the above.
50E26t 1mly.

Clubs of 5 for \$4.00, to any addresses.
Ten for \$7.50, if all are sent at one time.

HONEY AND BEESWAX MARKET.

CHICAGO, Feb. 22.—We quote: White clover in active demand and quick sales, on arrival; 1-lbs., 12@13c.; 2-lbs., 11@12c. Basswood 1-lbs., 11@12c. Buckwheat 1-lbs., 8@9c. Extracted, 6½@7¼c. Beeswax—bright, 25@26c.; dark, 23@24c.

S. T. FISH & CO., 189 S. Water St.

NEW YORK, Feb. 26.—Market quiet, especially on comb honey. Prices irregular, ranging from 9@13c., according to quality. Extracted is moving fairly well at prices we give on page 60.

HILDRETH BROS. & SEGELKEN,
28-30 Broadway, near Duane St.

KANSAS CITY, Feb. 26.—Demand is light. Fancy 1-lbs., 13c.; good white, 12c.; dark, 8@10c. Two-lbs., white, 10@11c.; dark, 8c. Extracted, white, 6@7c.; dark, 5c. Beeswax, 22c. HAMBLIN & BEARSS, 514 Walnut St.

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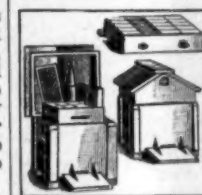
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Washington's Birthday—by the Editor. 65	Boston's New Collector—Alonson W. Beard (Illustrated)..... 72
Illustrations: George Washington—Mary, the Mother of Washington—Accepted the Challenge—Monument to Mary Washington—Present Condition of Monument—Martha, the Wife of Washington—Washington's Carriage—Washington's Table—The Father of His Country—Washington's Church.	Mystery of Dark Canyon—by Sherman L. Watkins—Chapters III and IV..... 73
Union of Good Families in George (Illustrated)..... 65	Facade of a Cathedral in Florence, Italy—Recently Restored (Full Page Illustration)..... 75, 94
The Mary Washington Monument—by Marion Harland (Illustrated)..... 66	Some Senators at Home..... 77
Washington's "Wants"..... 67	Illustrations: Edmunds in His Library—Ingalls in His Den—Allison Sits up Close.
Washington's Carriage (Illustrated)..... 67	The Late Count Andrassy (Illustrated). 78
Incidents in Washington's Life—by F. G. De Fountaine..... 68	Made Dundreary Funny..... 79
Washington's Business Habits..... 69	Illustration: Sothern as Lord Dundreary.
Washington's Religious Life..... 70	Educators in Council..... 79
Illustration: Pohick Church.	Illustration: Andrew S. Draper.
The Flag-Making Era (Illustrated)..... 70	Music:—"The Mermaid."..... 80
Washington as a Poet (Illustrated)..... 70	Music:—"The Chimes"..... 81
Gen. Salamanca (Illustrated)..... 70	Our Young Folks—by George W. York—Christmas in the Sunny South..... 82
Personal Gossip (Items)..... 71	A Pleased Pair of Southern Cherubs (Illustrated)..... 82, 94
Colorado River Sculptures..... 71	Fashions—How Plain Girls May Look Attractive..... 84
Some Things Worth Knowing (Items)..... 71	Illustrations: Picture Dress—Turkish Embroidered Costume—Pretty Dresses for Ingenues.
Universities of the World..... 71	The House-keeper—by Lucy Langdon—Home Life in Tibet..... 85
Morsels of Gastronomy..... 71	A Pioneer Habitation by the Sea (Illustration)..... 85, 94
French Fun on Ice..... 72	Daughters of Eve (Items)..... 87
Illustration: French Skating Rink.	The Puzzler—(Illustrated)—With Key to Former Puzzles..... 87
Edison's Statue—Genius of Light (Illustrated)..... 72	
Howard University's New President, Rev. Dr. Rankin (Illustrated)..... 72	

A Sensible Farm House (Illustrated with Plans)..... 88
Gathering Evergreens (Full-Page Engraving)..... 89, 95
A Millionaire of Note—by G. H. Yenowine..... 90
Illustrations: John Plankinton—His Residence—An Educational Monument.
Hon. Joseph G. Biggar (Illustrated).... 91
Personal Gossip (Items)..... 91
New Japanese Flags..... 91
Ideas for Dress (Items)..... 91
Six New York Beauties..... 92
Illustrations: Lillian Russell—Mrs. Burke Roche—Mrs. David Thomson—Mrs. Edith Kingdom Gould—The Duchess of Marlborough—Marion Manola.
The Late Cardinal Pecci (Illustrated).. 93
The Late Hon. Elihu Root (Illustrated). 93
Editorial Items..... 94, 95

POETRY:—

A Double Task..... 72
A Wonderful Weaver..... 73
He was Only a Boy..... 82
Indeed She Is..... 72
Keep a Watch on Your Words..... 94
Love Has a Season..... 93
Mother Hubbard—a New Version..... 93
Strange, Sad and Sweet..... 85
The Poet's Compliment..... 93
The Times Change..... 72
Where Is Home?..... 91
Would You?..... 92
Yesterday is Past..... 88

MISCELLANEOUS:—

A Big Shower..... 88
A Curious Theory..... 78
A Dream..... 88
Advance Sheets Unobtainable..... 71
A Love Test..... 78
An Expensive Perfume..... 83
Aphorisms..... 91
Ark of the Covenant..... 83
A Suitable Name..... 69
At the Club..... 93
Cantilever..... 87
Careful of Her Head..... 71
Children's Hats..... 84
Deaths of the Apostles..... 83
Desirable Forfeit..... 88
Extraordinary Symptom..... 72
He Saw the Point Afterwards..... 93
How He Avoided Marriage..... 93
How to Tell a Person's Age..... 84
Not Quite Right..... 78
Ode to the National Flour..... 88
Oldest Mine in the United States..... 76
Oyster Forcemeat..... 84
Roman Amphitheatre..... 76
Spurring Him On..... 70
The Tables Turned..... 88
The Tale of a Kiss..... 88
Timely Information..... 84
Where She Would Find Sympathy..... 91
Why it was so Named..... 93

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